Storage Netting at a Location

User Manual

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Overview

Netting is the process of minimizing the amount of gas withdrawn from or injected into storage. It is applicable to both customer nominated/scheduled storage quantities and storage quantities scheduled as the result of storage balancing activity. Netting requires shippers to specify the contracts across a legal entity that they want to net prior to the Final AM deadline and it allows shippers to "net" storage injection and withdrawal activities at a storage location each gas day. The two transportation scenarios are depicted in Figure 1 and Figure 2.

Injection and Withdrawal

Figure 1 depicts gas being injected into and withdrawn from storage and is explained in the bulleted items below.

- K_{1050} is receiving 100 units of gas at location 192 and is injecting it into Location 98 for K_{1006}.
- K_{1050} is receiving 100 units of gas at location 388 and is injecting it into Location 98 for K_{1006}.
- K_{1006} is withdrawing 300 units of gas from storage at Location 98 for K_{1050} and is delivering it to Location 180. Thus, K_{1006} will be charged for two injection fees and one withdrawal fee.

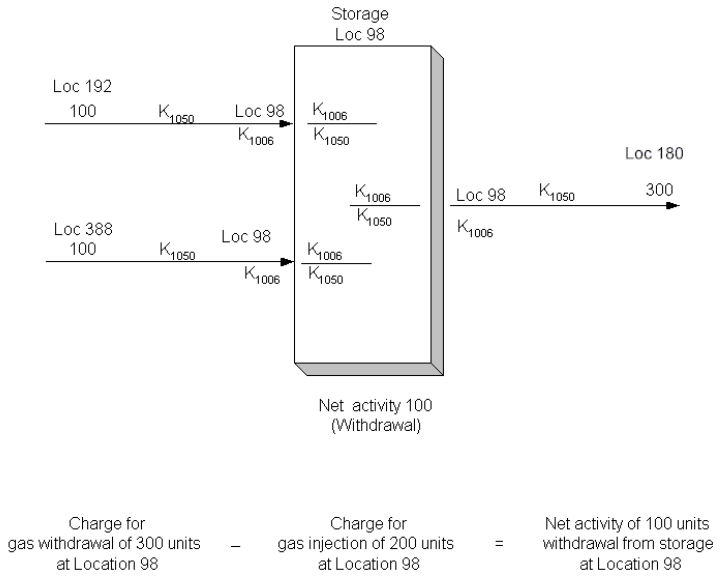


Figure 1. Injecting and Withdrawing Gas from Storage

Netting Transaction

Figure 2 depicts a netting transaction and is explained in the bulleted items below.

- K_{1050} at Locations 192 and 388 respectively receive 100 units of gas each.
- K_{1050} at Location 180 requires 300 units of gas.
- To avoid as many injection and withdrawal fees as possible, the gas received from Locations 192 and 388 (200 units collectively) is transported to Storage Location 98. These 200 units are delivered to K_{1050} at Storage Location 98 and transported directly to Location 180, thus bypassing storage transactions at Location 98.
- 100 units of gas are withdrawn from K_{1006} at Storage Location 98. This withdrawal completes the 300 unit-requirement for K_{1050} at Location 180. However, using this method of shipping, the shipper only has to pay a withdrawal fee for 100 units from storage vs. the injection and withdrawal fees depicted in Figure 1.

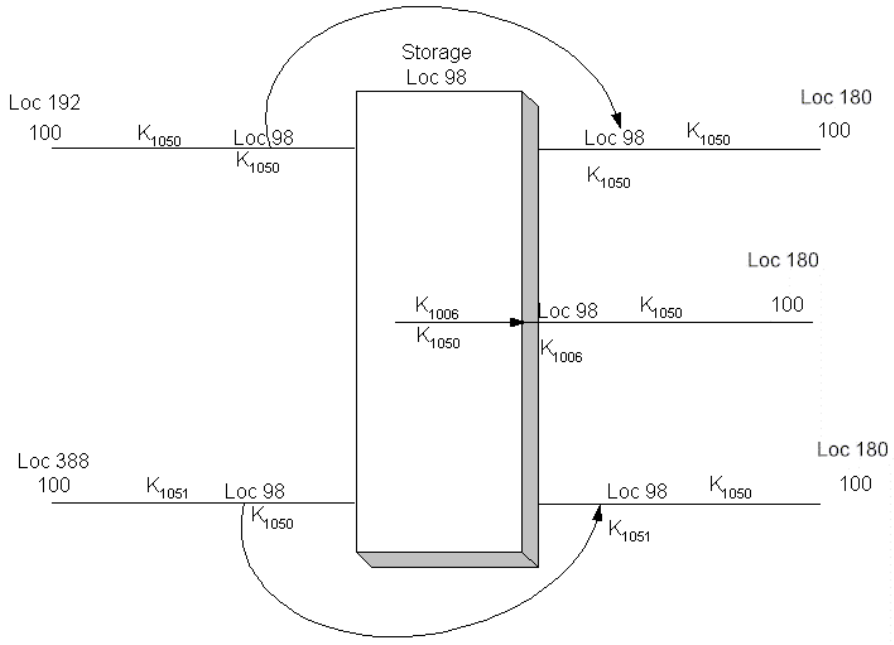


Figure 2. Netting Gas to Bypass Storage

Netting includes both nominated and scheduled storage and storage balancing activity. Users must specify the storage contracts on which they want the netting to occur. This is accomplished via grouping and ranking. Grouping is the process of collecting contracts by location. The highest numbered rank contract is netted out first. For example, K_{1051} in Table 1 will be netted before K_{1050}. K_{1050} will continue to receive gas until it reaches its 3000 unit capacity and then K_{1051} will receive the remainder.

Location 180	K_{1050}	3000 units of gas storage capacity	Group 1	Rank 1
Location 180	K_{1051}	5000 units of gas storage capacity	Group 1	Rank 2

Table 1. Grouping and Ranking

Functional Processes

Following are the processes that can be performed using the Storage Netting application screens.

Open/Copy Storage Netting Screen Functions

- ❑ Open source netting entries for a specified gas day
- ❑ Copy source netting entries for a specified gas day

Storage Netting at a Location View Screen

- ❑ Assign group and rank to an existing netting entry
- ❑ Change group and rank of an existing netting entry
- ❑ View detailed nomination and scheduled quantities of a selected netting entry
- ❑ Delete group and rank of existing netting entries

Open/Copy Storage Netting Screen

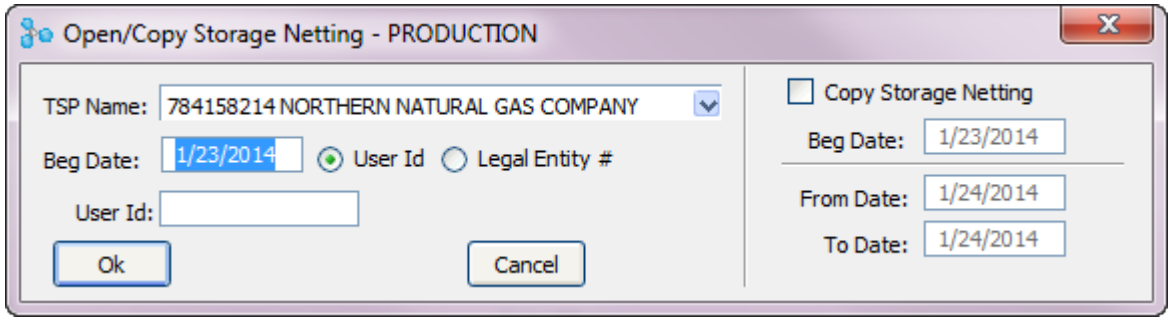


Figure 3. Open/Copy Storage Netting Screen

The purpose of the **Open/Copy Storage Netting** screen is twofold:

- ❑ Open source netting entries for a specified gas day (page 5)
- ❑ Copy source netting entries for a specified gas day (page 7)

Open Source Netting Entries

The instructions below explain how to open existing source netting entries for a particular gas date.

1. Select **Storage|Storage Netting at a Location** from the TMS main menu. The Storage Netting at a Location View screen appears and is overlaid by the Open/Copy Storage Netting screen (Figure 3). You will gain access to Storage Netting at a Location View screen via the Open/Copy Storage Netting screen.
2. The *Company* field defaults to **Northern Natural Gas Company** (Figure 3).
3. Type the desired date of the source netting entries that you want to access in the *GasDate* field. Use the **mmddyyyy** format.
4. Type the beginning date of the date range you are building in the *From Date* field.
5. Click the radio button to the left of either User ID or Legal Entity #. Type the corresponding ID in the *ID* field.

6. Click in the box to the left of *Copy Storage Netting* so that a check mark appears there.
7. Type the gas date you want to copy in the *Gas Date* field.
8. Type the beginning date of the date range you are building in the *From Date* field.
9. Type the ending date of the date range you are building in the *To Date* field.

NOTE: *If desired, click* Cancel *to close the* **Open/Copy Storage Netting** *screen and return to the* **Storage Netting at a Location View** *screen.*

10. Click Ok. The **Storage Netting at a Location View** screen appears (Figure 4).
11. The data is copied to every day in the date range you specified; however, only data from the first day in the date range specified will display on the **Storage Netting at a Location View** screen**.** All data for the date range specified is copied but not yet saved.

    You must click Submit on the **Storage Netting at a Location View** screen to save this data.

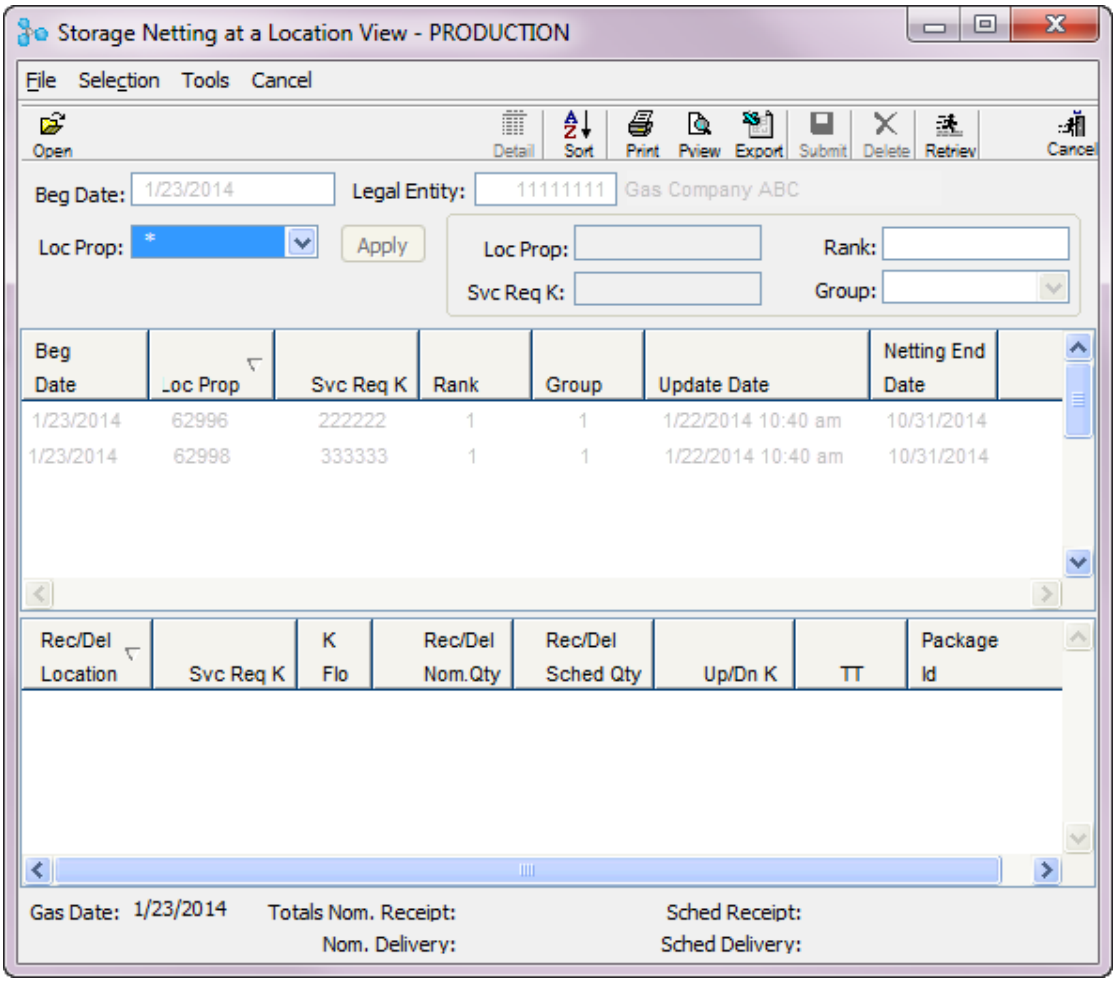


Figure 4. Storage Netting at a Location View Screen

After having submitted data to the system, you can then view the data on the **Netting Dates** dialog box.

12. Highlight a line item on the **Storage Netting at a Location View** screen.

13. Click Detail.
The Netting Dates dialog box appears and displays all netted data for a specified location and contract for the selected gas day plus 30 days forward.

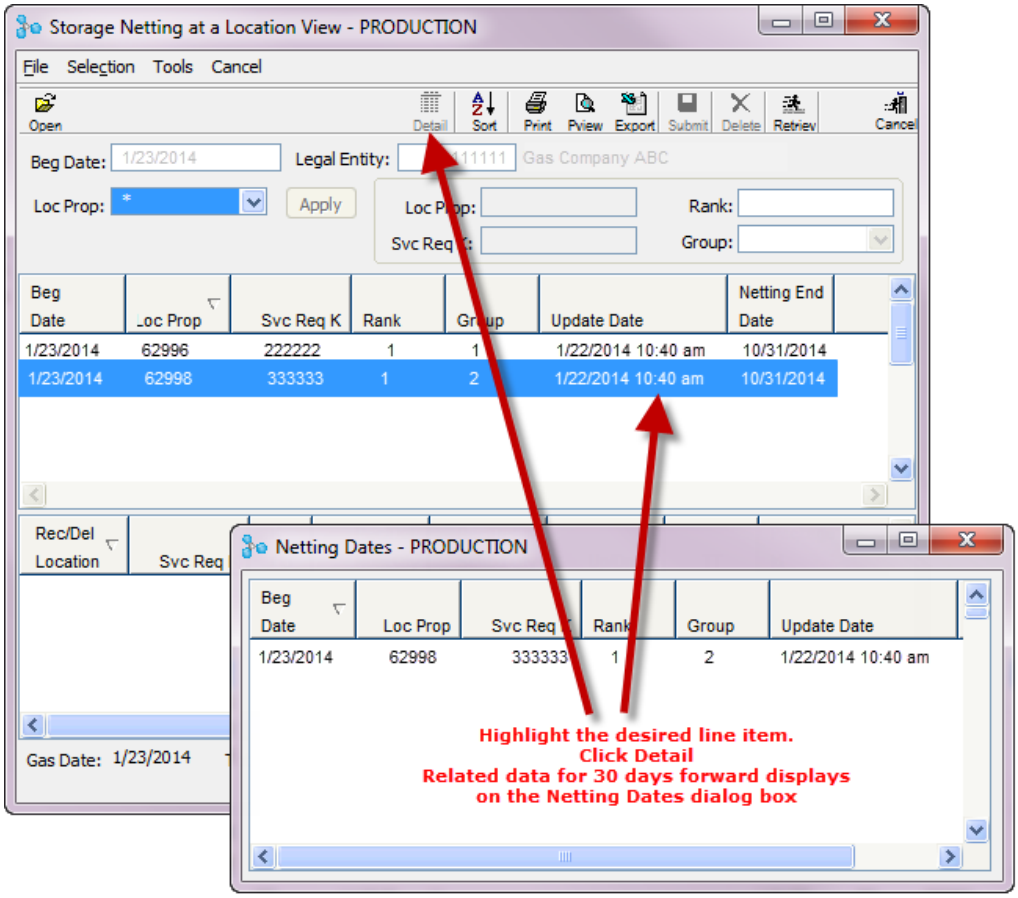


Figure 5. Storage Netting at a Location View Screen and the Netting Dates Dialog Box

After viewing data on the Netting Dates dialog box, click X to return to the **Storage Netting at a Location View** screen.

Copy Source Netting Entries

The purpose of the copy function is to save you time when creating new source netting entries. Rather than having to re-key data that will remain constant over the course of the contract, you can copy existing source netting entries to a future gas date. The instructions below explain how to copy source netting entries for a specified date.

1. Select **Storage|Storage Netting at a Location** from the TMS main menu. The Storage Netting at a Location View screen appears and is overlaid by the Open/Copy Storage Netting screen (Figure 3). You will gain access to **Storage Netting at a Location View** screen via the **Open/Copy Storage Netting** screen.
2. The *Company* field defaults to **Northern Natural Gas Company** (Figure 3).
3. Click inside the **Copy Storage Netting** check box to make it active Copy Storage Netting.
4. Type the desired date from which you want to copy netting entries in the *Gas Date* field.
5. Type the desired date to which you want to copy netting entries in the *To Date* field.

NOTE: *If desired, click* Cancel *to close the* **Open/Copy Storage Netting** *screen and return to the* **Storage Netting at a Location View** *screen.*

6. Click Ok. The data display area of the ***Storage Netting at a Location View*** screen populates with the newly created source netting entries for the specified date (Figure 6).

   You are now ready to use the functions available on the ***Storage Netting at a Location View*** screen (see page 9).

Open/Copy Storage Netting Screen Field Help

Field Name	***Description***
Company	Northern Natural Gas customers.
Gas Date	Retrieves storage locations and contracts for the specified gas day.
Ok	Retrieves existing data for the specified gas day.
Cancel	Cancels data that has been input, thus allowing you to repopulate the screen with new data.
Copy Storage Netting	Check **Copy Storage Netting** to specify that you want to make a copy of nominations from a specified date.
Gas Date	The date from which you want to copy storage netting data.
To Date	The date to which you want to copy storage netting data.

Storage Netting at a Location View Screen

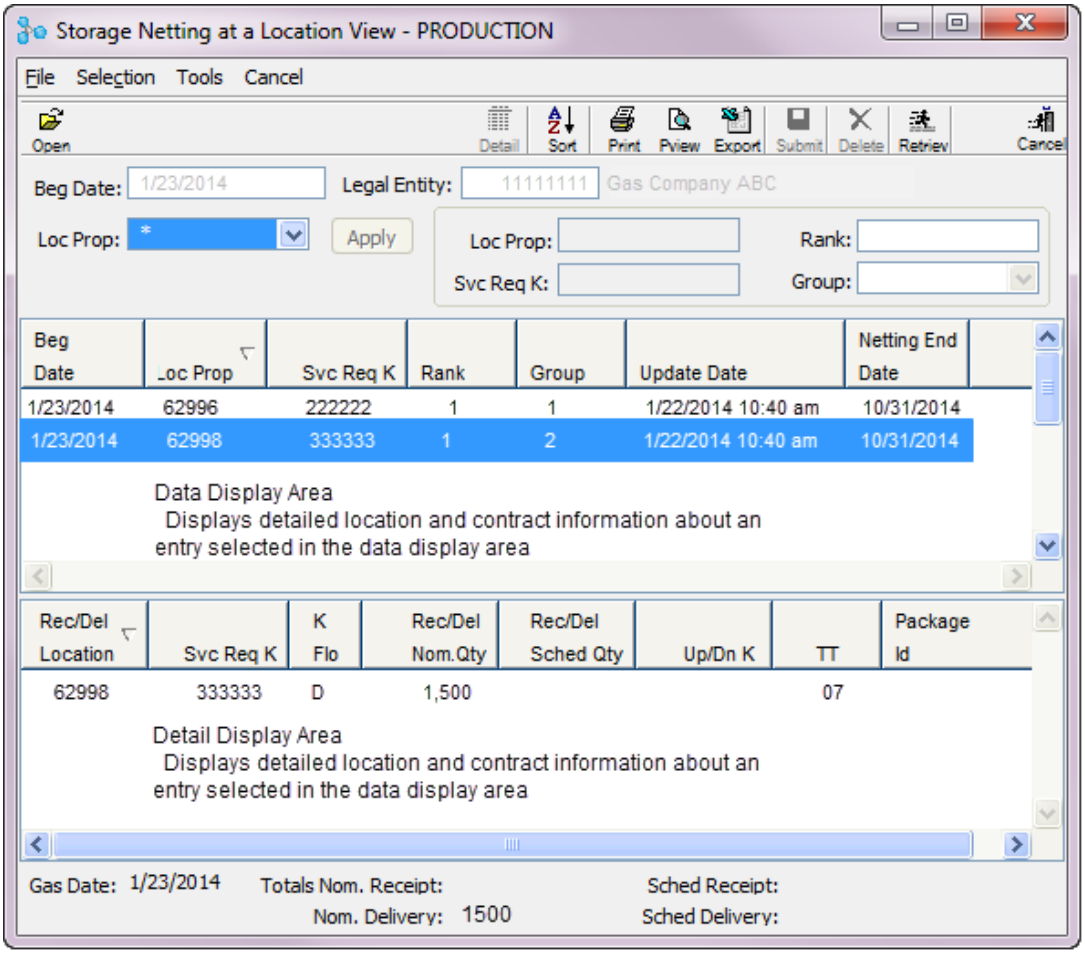


Figure 6. Storage Netting at a Location View Screen

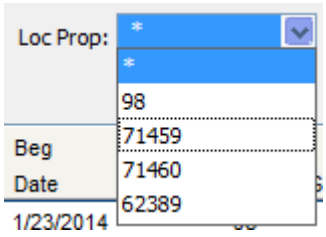
The **Storage Netting at a Location View** screen is used for the following operations:

- ❑ Assign Group and Rank
- ❑ Change Group and Rank
- ❑ View Detailed Nomination and Scheduled Quantities
- ❑ Delete Group and Rank

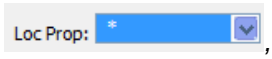
Assign Group and Rank

The following instructions explain how to assign a group and rank to an existing netting entry.

1. Open the netting entries for the desired date as explained in the ***Open Source Netting Entries*** section on Page 5.
2. Click the down arrow in the *Location* field of the **Storage Netting at a Location View** screen and select a specific location number as shown in the picture below.



The data display area populates with netting entries for the specified gas day and location (Figure 7).

NOTE: *If you allow the* ***Location*** *field to default to the asterisk* 

, all netting entries for the selected gas day display.

3. Click on the desired netting entry in the data display area so that it is highlighted. The detail display area populates with contract and location details about the selected entry as shown in Figure 7.

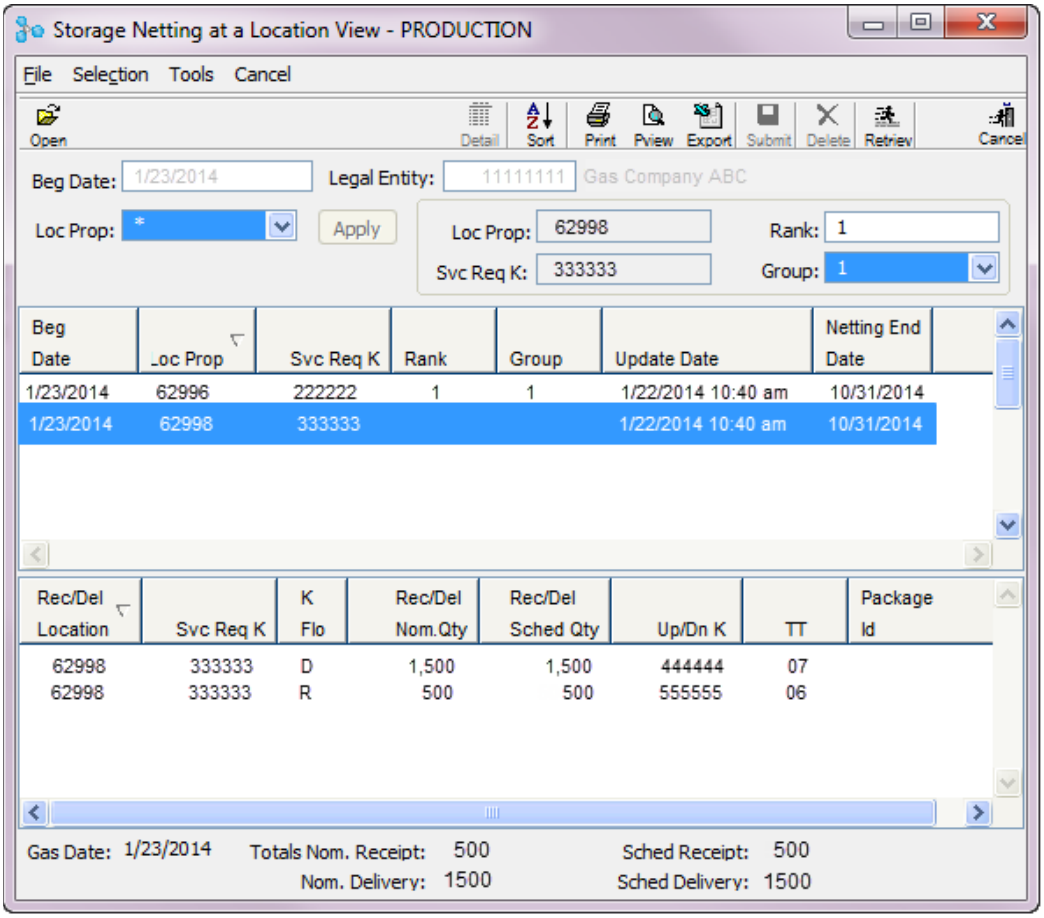


Figure 7. Storage Netting at a Location View Screen - Populated

4. Click the down arrow in the *Group* field and select the group number that you want to assign to the netting entry.

5. Click in the *Rank* field and type the desired ranking number.

NOTE: *The result of the net for each group will be put on the contract with the lowest rank using normal storage validation.*

6. Click

.
The group and rank appear in the data display area of the screen.

7. Click

to save the changes you made for group and rank. The **Update Successful** dialog box appears.

8. Click

.

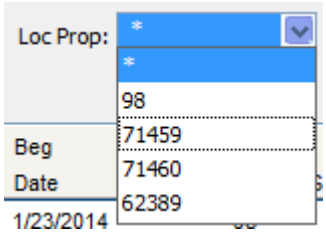
NOTE: *If desired, you can assign all the groups first, then go back and assign them a rank. Remember, however, you will not be allowed to save if you have not assigned a rank.*

Change Group and Rank

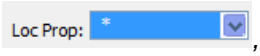
The following instructions explain how to change the group and rank of a selected netting entry.

1. Open the netting entries for the desired date as explained in the ***Open Source Netting Entries*** section on Page 5.

2. Click the down arrow in the *Location* field of the **Storage Netting at a Location View** screen and select a specific location number.



The data display area populates with netting entries for the specified gas day and location (Figure 7).

NOTE: *If you allow the **Location** field to default to the asterisk* 

, all netting entries for the selected gas day display.

3. Click on the netting entry that you want to change in the data display area so that it is highlighted.

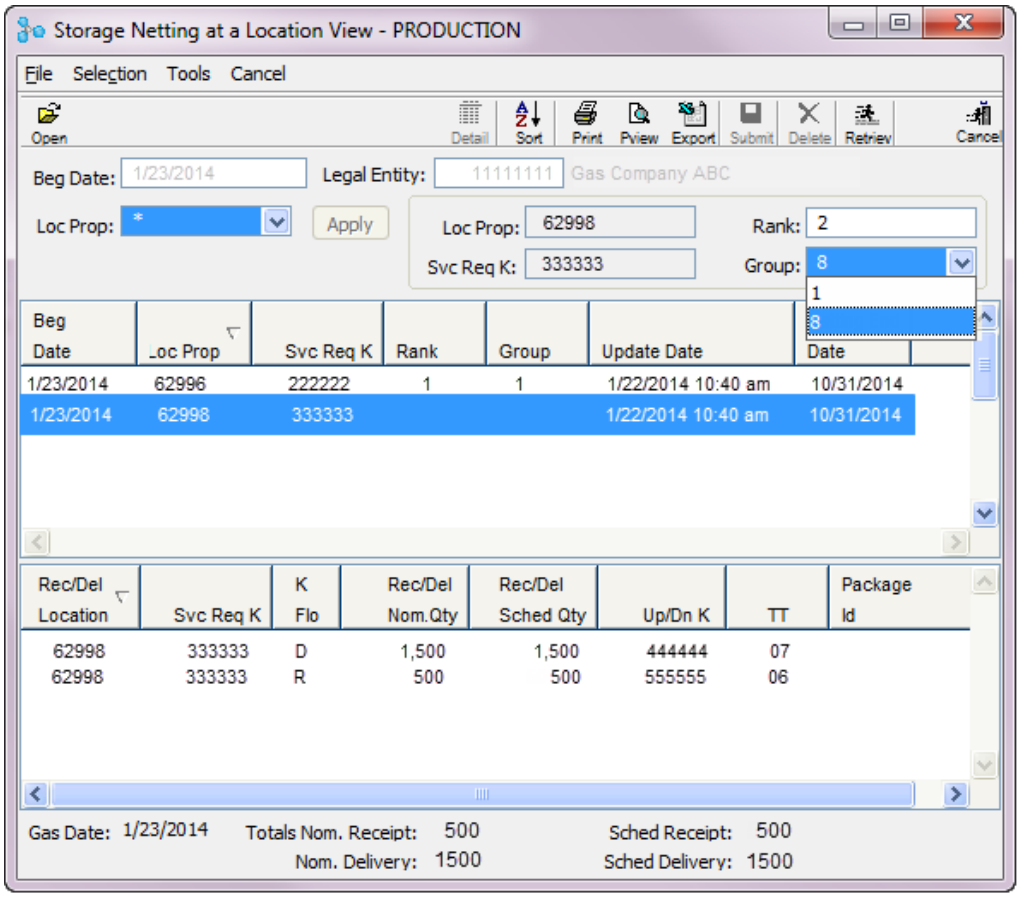

Storage Netting at a Location View - PRODUCTION
File Selection Tools Cancel
Open Detail Sort Print Pview Export Submit Delete Retriev Cancel
Beg Date: 1/23/2014 Legal Entity: 11111111 Gas Company ABC
Loc Prop: * Apply
Loc Prop: 62998 Rank: 2
Svc Req K: 333333 Group: 8
1
3
Beg Date | Loc Prop | Svc Req K | Rank | Group | Update Date | Date
1/23/2014 62996 222222 1 1 1/22/2014 10:40 am 10/31/2014
1/23/2014 62998 333333 1/22/2014 10:40 am 10/31/2014
Rec/Del Location | Svc Req K | K Flo | Rec/Del Nom.Qty | Rec/Del Sched Qty | Up/Dn K | TT | Package Id
62998 333333 D 1,500 1,500 444444 07
62998 333333 R 500 500 555555 06
Gas Date: 1/23/2014 Totals Nom. Receipt: 500 Sched Receipt: 500
Nom. Delivery: 1500 Sched Delivery: 1500

Figure 8. Storage Netting at a location View—Changing Rank and Group

4. Click the down arrow in the *Group* field and select the desired group number that you now want to assign to the netting entry.
5. Click in the *Rank* field and type the new ranking number.

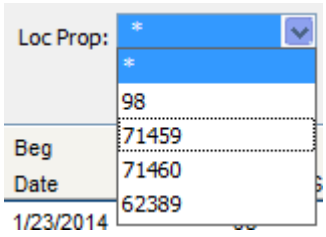
> ***NOTE:*** *You will not be allowed to assign the same rank number to more than one netting entry within a group.*

6. Click Apply.
7. Click Save to save the changes you made for group and rank. The **Update Successful** dialog box appears.
8. Click Ok. The change transaction is complete.

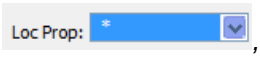
View Detailed Nomination and Scheduled Quantities

The following instructions explain how to view detailed nomination and scheduled quantities of a selected netting entry.

1. Open the netting entries for the desired date as explained in the **Open Source Netting Entries** section on Page 5.
2. Click the down arrow in the *Location* field of the Storage Netting at a Location View screen and select a specific location number.



The data display area populates with netting entries for the specified gas day and location (Figure 7).

NOTE: *If you allow the* ***Location*** *field to default to the asterisk* 

, all netting entries for the selected gas day display.

3. Click on the netting entry that you want to view in the data display area so that it is highlighted. The detail display area populates with detailed location and contract information about the selected netting entry (Figure **9**).

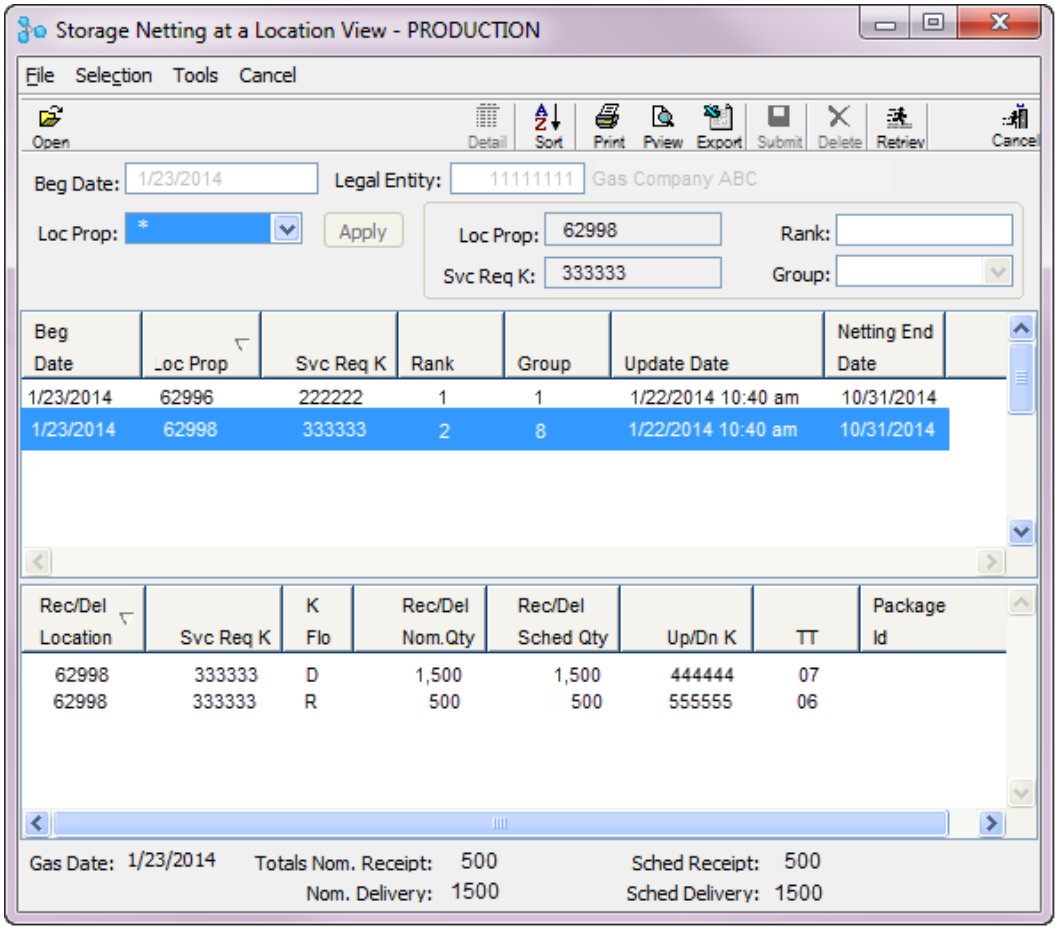
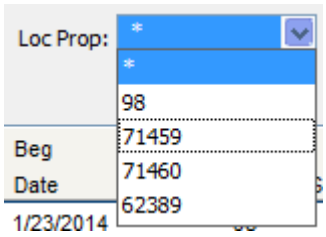

Storage Netting at a Location View - PRODUCTION
File Selection Tools Cancel
Open Detail Sort Print Pview Export Submit Delete Retriev Cancel
Beg Date: 1/23/2014
Legal Entity: 11111111 Gas Company ABC
Loc Prop: *
Apply
Loc Prop: 62998
Svc Req K: 333333
Rank:
Group:
Beg Date | Loc Prop | Svc Req K | Rank | Group | Update Date | Netting End Date
1/23/2014 | 62996 | 222222 | 1 | 1 | 1/22/2014 10:40 am | 10/31/2014
1/23/2014 | 62998 | 333333 | 2 | 8 | 1/22/2014 10:40 am | 10/31/2014
Rec/Del Location | Svc Req K | K Flo | Rec/Del Nom.Qty | Rec/Del Sched Qty | Up/Dn K | TT | Package Id
62998 | 333333 | D | 1,500 | 1,500 | 444444 | 07
62998 | 333333 | R | 500 | 500 | 555555 | 06
Gas Date: 1/23/2014
Totals Nom. Receipt: 500
Nom. Delivery: 1500
Sched Receipt: 500
Sched Delivery: 1500

Figure 9. Storage Netting at a Location View—Detailed Nomination Quantities

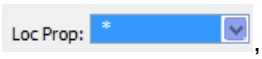
Delete Group and Rank

The following instructions explain how to delete the group and rank of existing netting entries.

1. Open the netting entries for the desired date as explained in the Open Source Netting Entries section on Page 5.
2. Click the down arrow in the Location field of the Storage Netting at a Location View screen and select a specific location number.



The data display area populates with netting entries for the specified gas day and location.

> ***NOTE:*** If you allow the **Location** field to default to the asterisk 
>
> , all netting entries for the selected gas day display.

3. Click on the netting entry for which you want to delete the rank and group in the data display area so that it is highlighted.
4. Click

. The rank and group are deleted from the netting entry as shown in Figure 10.

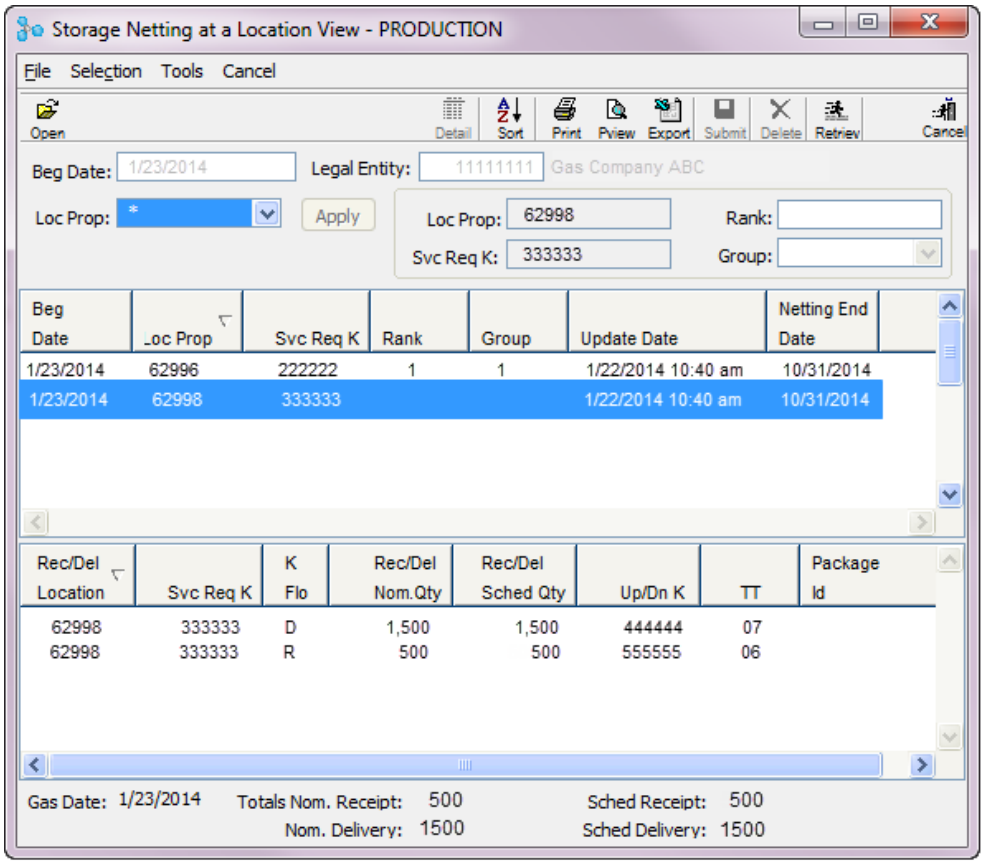


Figure 10. Storage Netting at a location View—Delete Rank and Group

5. Click to save the changes you made for group and rank. The **Update Successful** dialog box appears.

6. Click . The change transaction is complete.

Storage Netting at a Location View Screen Field Help

Field Name	***Description***
Apply	Applies the changes that you have made to the data.
Contract	A number signifying the contractual agreement between the shipper and the pipeline.
Gas Date	Retrieves only the entries that can be netted for the specified gas day.
Group	The number indicating the contracts that will be netted together. This is an editable field.
Package Id	Service requester-assigned identification number used to track packages of gas. A service requestor-assigned identifier used to differentiate between discreet business transactions. An optional field that may be used to describe the nomination at a lower level.
Rank	Ranks contracts to be netted.
Rec/Del Location	The location where the quantity will be scheduled for receipt or delivery by the service provider. This location must be valid for the nomination contract for the entire date range of the nomination. In addition, it must be a valid location for the contract.
Rec/Del Nom Qty	Nominated receipt or delivery quantity.
Rec/Del Schd Qty	Scheduled receipt or delivery quantity.
Role	Whether a receipt or a delivery.
Trans Type	Identifies the transaction type of the nomination. The valid types follow: 01 Current business 02 Overrun 03 Imbalance from the pipeline 04 Imbalance to the pipeline 06 Injection 07 Withdrawal 08 Pooling 71 SBS Injection 72 SBS Withdrawal 99 Exchange Gas
Up/Down Contract	Upstream — Alphanumeric contract identifier of the party who is supplying the quantities to the service requester. Downstream — Alphanumeric contract identifier of the party who is receiving the quantities from the service requester.
Update Date	The date when the user creates or changes the source netting entry.

Exit the TMS Application

Select **Exit|Exit Application** on the TMS main menu to exit **TMS** (Figure 11).

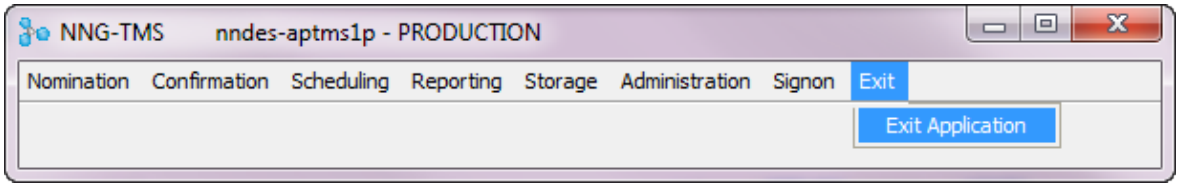


Figure 11. Exit Main Menu

NOTE: *If you are buried in the system and want to exit, you will have to click* *or* *on each screen until you are returned to the TMS main menu.*

TMS Generic Screen Functions

Following are detailed instructions for using the basic screen functions that are generic to the TMS program.

- System Tool Bar Icons (Page 17)
- Sort (Page 18)
- Print (Page 19)
- Preview (Page 19)
- Export (Page 19)

System Tool Bar Icons

The following tool bar icons are used generically throughout the TMS program.

Icon	*Hot Key*	*Notes*
Open	Alt+O	Opens the Open/Copy Storage Netting screen where you can enter and select the company, contract number, and gas day you want to retrieve. The Open/Copy Storage Netting screen also provides a copy function that allows you to copy the entire nomination from one gas date to a new gas date range.
Submit	Alt+S	Saves all current updates to TMS database if all validation criteria are met. If an error message appears changes will not be saved. All error messages must be adjusted and corrected before the nomination can be saved.
Retrieve	Alt+R	Retrieves pre-existing data for the gas day selected. Re-retrieves the contract you already have open.
Delete	Alt+D	Deletes selected information at a line item level. Only paths that have not been scheduled can be deleted.
Sort	Alt+Z	Sorts all applied data fields available in the Selection View screen (ascending or descending order) based on the selection criteria the user selects.
Print	Alt+P	Prints the entire nomination detail for the contract that you have open regardless if all paths have been saved.
Preview	Alt+V	Previews the entire nomination detail for the contract that you have open.
Export	Alt+B	Exports data on the screen that you have open to a tab-delimited file. You can then customize the data into your own file as needed.
Cancel		Closes the active screen and returns you to the main menu.

Sort

Sorts are performed in basically the same manner on all screens. The various sort options are explained below.

Data Sorts

1. Click anywhere in the netting entry area of the screen.
2. Either click the **Sort** icon, press the **Alt+Z** keys, or **Select Tools|Sort Table** from the menu bar at the top of the screen. The Sort Criteria View screen appears.

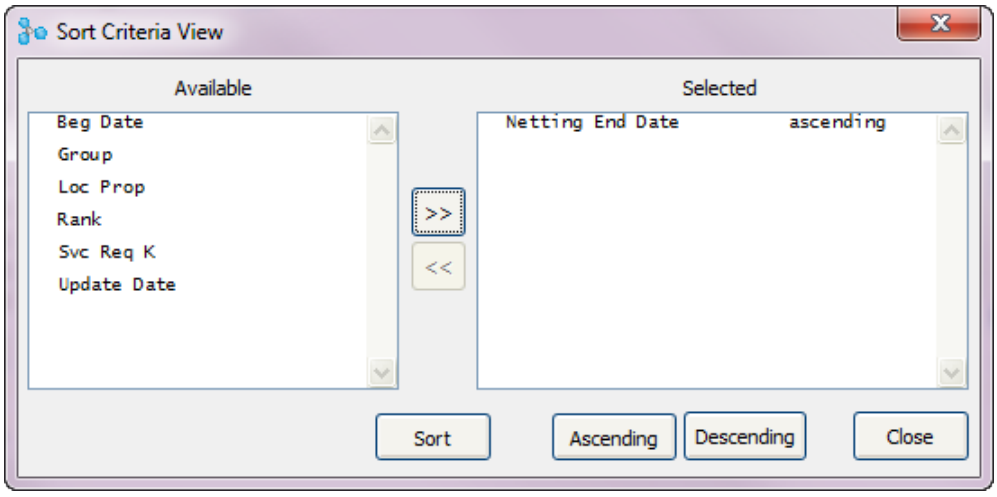


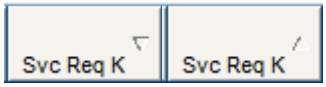
Figure 12. Sort Criteria View

3. Click on a field in the **Available** area of the screen on which you want to perform a search.
   A check mark appears to the left of it.
4. Click to transfer it to the **Selected** area of the screen.
5. Click either the **Ascending** or the **Descending** button depending on which way you want to sort.
6. If you change your mind and do not want to sort on one of the variables you have selected, click on the variable you no longer want.A check mark will appear beside it.
7. Click to return the variable to the **Available** area of the screen.
8. Click .
9. You are returned to the screen from where you initiated the sort. The fields are sorted as you had directed.

Column Sorts

You can perform a sort on a specific data column. The explanation follows.

1. Use your left mouse button to click on a column header. For example, **Rank** as shown in the picture below.



The sort option on these field columns is a toggle.

2. Click once and it sorts in ascending order.
3. Click again and the system toggles to sort in descending order.

Print

Click Print or select **Tools|Print Detail** from the menu bar to print the screen (Alt+P).

Preview

Click Pview or select **Tools|Print Preview** to preview the data on the screen (Alt+V). The screen will populate and you may print from the preview or close the preview option.

Export

You can export a file from any TMS screen that has the **Export** Export icon; for example, the Storage Netting at a Location View screen (Figure 13).

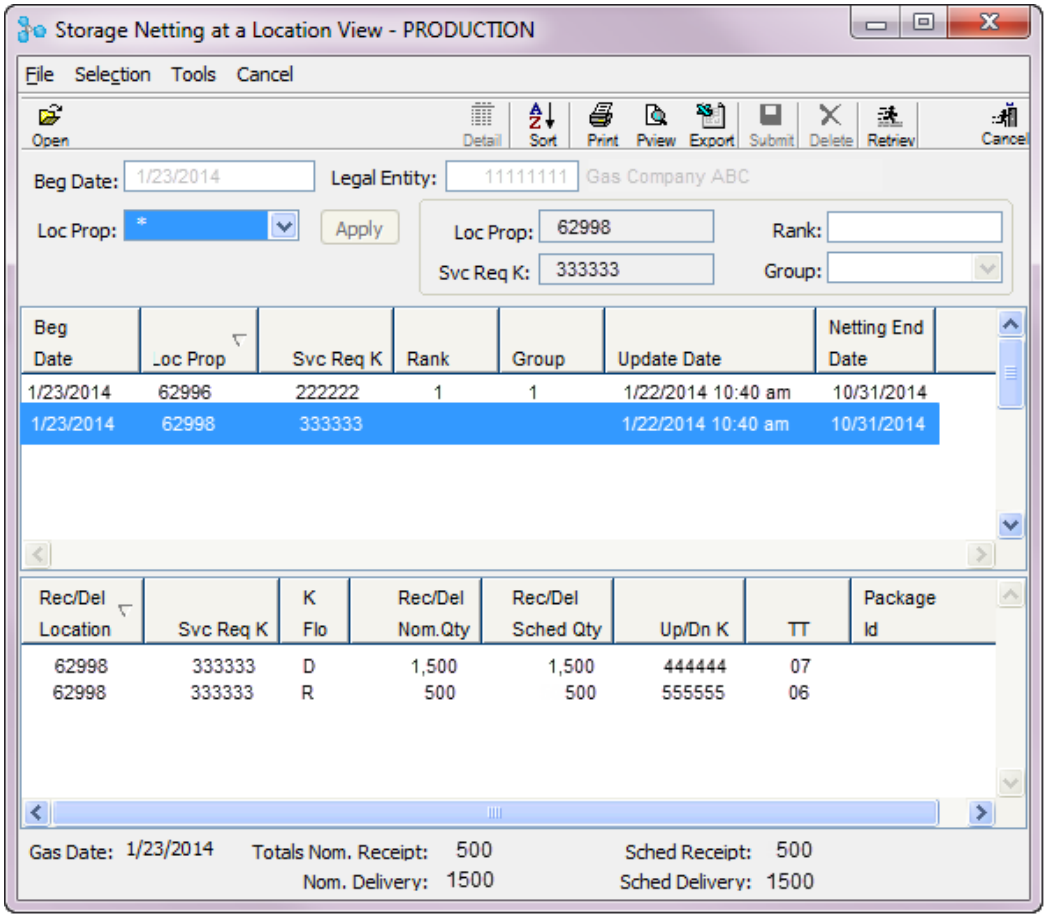
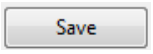

Storage Netting at a Location View - PRODUCTION
File Selection Tools Cancel
Open Detail Sort Print Pview Export Submit Delete Retriev Cancel
Beg Date: 1/23/2014
Legal Entity: 11111111 Gas Company ABC
Loc Prop: *
Apply
Loc Prop: 62998
Svc Req K: 333333
Rank:
Group:
Beg Date | Loc Prop | Svc Req K | Rank | Group | Update Date | Netting End Date
1/23/2014 62996 222222 1 1 1/22/2014 10:40 am 10/31/2014
1/23/2014 62998 333333 1/22/2014 10:40 am 10/31/2014
Rec/Del Location | Svc Req K | K Flo | Rec/Del Nom.Qty | Rec/Del Sched Qty | Up/Dn K | TT | Package Id
62998 333333 D 1,500 1,500 444444 07
62998 333333 R 500 500 555555 06
Gas Date: 1/23/2014
Totals Nom. Receipt: 500
Nom. Delivery: 1500
Sched Receipt: 500
Sched Delivery: 1500

Figure 13. Storage Netting at a Location View Screen

1. Highlight the contract that you want to export.
2. Click Export. The **Save As** screen appears

3. Navigate to the directory where you want to export the file.
4. Click in the *File name* field and change the **file name** if necessary.
5. The *Save as type* does not need to be changed.
6. Click 

. All data related to the selected contract is exported to the specified directory location as an excel file.

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